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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/815,236
Filing Date: March 31, 2004
Appellant(s): CHILDRESS ET AL.

Childress et al.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 27 June 2008 appealing from the Office action mailed 02 April 2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

Applicant Own Admitted Prior art (APA)

2005/0055446	Chidambaran et al.	3-2005
2003/0120771	Laye et al.	6-2003
2006/0293942	Chaddha et al.	12-2006

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claims 9-16 are rejected under 35 U.S.C. 101 because The Claimed Invention is directed to signals.
2. As written, applicant is claiming "A computer readable medium encoded with a computer program product that is operable with a data processing system". In the disclosure, applicant further recites "Examples of computer readable media include recordable-type media, such as a floppy disk, a hard disk drive, a RAM, CD-ROMs, DVD-ROMs, and transmission-type media, such as digital and analog communications links, wired or wireless communications links using transmission forms, such as, for example, radio frequency and light wave transmissions (page 34, lines 15-21). In essence the applicant is claiming a non-statutory subject matter.

3. In order for software claims to be statutory, they must be claimed in combination with an appropriate medium and/or hardware to establish statutory category of invention and enable any functionality to be realized as set forth in MPEP 2106.01.

Software, per se:

The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because "the sole practical application of the algorithm was in connection with the programming of a general purpose computer.").

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 1, 6-9, 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Own Admitted Prior Art (APA) in view of Kiremidjian et al. (Kiremidjian) US PG Pub. No. 2003/0229714, and further in view of Chidambaran et al. (Chidambaran) US PG. Pub. No. 2005/0055446.
5. The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer

in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

6. Regarding Claim 1, APA discloses a method in a data processing system, for allocating service provider system resources to hosted applications, comprising: determining whether a breach of a first SLA is imminent (IDS, AA, page 1, lines 22-25 & page 5, lines 23-24); retrieving SLA information for the SLA (IDS, AA, page 3; lines 12-14) determining a minimum penalty SLA based on the retrieved SLA information (IDS, AA, page 1, lines 30-32 and page 2, lines 1-2). However, APA does not explicitly teach: a plurality of service level agreements (SLAs) currently being serviced by service provider system resources.

7. In the same field of endeavor, Kiremidjian teaches, (page 4, ¶0059) plurality of SLA's.

8. It would have been obvious to one of ordinary skill in the networking art at the time the applicant's invention was made to combine Kiremidjian's teachings of plurality of SLA's with the teachings of APA, for the purpose of (see Kiremidjian, page 2, ¶0017). APA provides motivation to do so, by providing the ability to manage performance and availability levels of monitored service elements (see IDS, AA, page 1, lines 2-7).

Claim Rejections - 35 USC § 103

9. Regarding Claim 1, APA-Kiremidjian, disclose the invention as substantially claimed. However, APA-Kiremidjian do not explicitly teach: reallocating service provider system resources from applications associated with the minimum penalty SLA to applications associated with the first SLA.
10. In the same field of endeavor, Chidambaran teaches, (page 3, ¶0043) reallocation of resources.
11. It would have been obvious to one of ordinary skill in the networking art at the time the applicant's invention was made to combine Chidambaran's teachings as explained above with the teachings of APA-Kiremidjian, for the purpose of (see Chidambaran, page 2, ¶0027). APA provides motivation to do so, by providing the ability to manage performance and availability levels of monitored service elements (see IDS, AA, page 1, lines 2-7).
12. Regarding Claim 6, ARA further discloses, determining whether a breach of a first SLA is imminent includes using a prediction engine to generate a prediction of whether the first SLA will be breached based on monitored metrics of a service provider system (IDS, AA, page 5, lines 23-24).

13. Regarding Claim 7, ARA further discloses, the prediction engine is a trend analysis algorithm associated with a service level management system (IDS, AD, page 4, lines 14-19).

14. Regarding Claim 8, ARA further discloses, if it is determined that a breach of a first SLA is not imminent, allocation of service provider system resources is performed in a default manner (IDS, AD, page 4, lines 9-13).

15. Claim 9, lists all the same elements of claim 1, but in a computer program product form rather than a method form. Therefore, the supporting rationale of the rejection to claim 1 applies equally as well to claim 9.

16. Claim 14, lists all the same elements of claim 6, but in a computer program product form rather than a method form. Therefore, the supporting rationale of the rejection to claim 6 applies equally as well to claim 14.

17. Claim 15, lists all the same elements of claim 7, but in a computer program product form rather than a method form. Therefore, the supporting rationale of the rejection to claim 7 applies equally as well to claim 15.

18. Claim 16, lists all the same elements of claim 8, but in a computer program product form rather than a method form. Therefore, the supporting rationale of the rejection to claim 8 applies equally as well to claim 16.

19. Claim 17, lists all the same elements of claim 1, but in an apparatus form rather than method form. Therefore, the supporting rationale of the rejection to claim 1 applies equally as well to claim 17.

Claim Rejections - 35 USC § 103

20. Claims 2, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over APA-Kiremidjian-Chidambaran as applied to claim 1, 9 above and further in view of Laye et al. (Laye) US PG Pub. No. 2003/0120771.

21. Regarding Claim 2, APA-Kiremidjian-Chidambaran, disclose the invention as substantially claimed. However, APA-Kiremidjian-Chidambaran do not explicitly teach: information from one or more Extensible Markup Language (XML) documents in an SLA storage system.

22. In the same field of endeavor, Laye teaches, (page 4, ¶0062) transferred information including various types of SLA events in Extensible Markup Language (XML).

23. It would have been obvious to one of ordinary skill in the networking art at the time the applicant's invention was made to combine Laye's teachings as explained above with the teachings of APA-Kiremidjian-Chidambaran, for the purpose of (see Laye, page 1, ¶0013). APA provides motivation to do so, by providing the ability to manage performance and availability levels of monitored service elements (see APA, page 1, lines 2-7).

24. Claim 10, lists all the same elements of claim 2, but in a computer program product form rather than a method form. Therefore, the supporting rationale of the rejection to claim 2 applies equally as well to claim 10.

Claim Rejections - 35 USC § 103

25. Claims 3-5, 11-13, 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over APA-Kiremidjian-Chidambaran as applied to claims 1, 9, 17 above and further in view of Chaddha et al. (Chaddha) US PG Pub. No. 2006/0293942.

26. Regarding Claim 3, APA-Kiremidjian-Chidambaran, disclose the invention as substantially claimed. However, APA-Kiremidjian-Chidambaran do not explicitly teach: SLA information includes one or more penalties associated with each of the SLAs.

27. In the same field of endeavor, Chaddha teaches, (page 7, ¶0068, lines 14-19 & ¶0070) information associating penalties to SLAs.

28. It would have been obvious to one of ordinary skill in the networking art at the time the applicant's invention was made to combine Chaddha's teachings as explained above with the teachings of APA-Kiremidjian-Chidambaran, for the purpose of (see Chaddha, page 1, ¶0011). APA provides motivation to do so, by providing the ability to manage performance and availability levels of monitored service elements (see APA, page 1, lines 2-7).

29. Regarding claims 4, 5 the limitations of these claims have already been addressed above.

30. Claim 11, lists all the same elements of claim 3, but in a computer program product form rather than a method form. Therefore, the supporting rationale of the rejection to claim 3 applies equally as well to claim 11.

31. Claim 12, lists all the same elements of claim 4, but in a computer program product form rather than a method form. Therefore, the supporting rationale of the rejection to claim 4 applies equally as well to claim 12.

32. Claim 13, lists all the same elements of claim 5, but in a computer program product form rather than a method form. Therefore, the supporting rationale of the rejection to claim 5 applies equally as well to claim 13.

33. Claim 18, lists all the same elements of claim 3, but in a computer program product form rather than a method form. Therefore, the supporting rationale of the rejection to claim 3 applies equally as well to claim 18.

34. Claim 19, lists all the same elements of claim 4, but in a computer program product form rather than a method form. Therefore, the supporting rationale of the rejection to claim 4 applies equally as well to claim 19.

35. Claim 20, lists all the same elements of claim 5, but in a computer program product form rather than a method form. Therefore, the supporting rationale of the rejection to claim 5 applies equally as well to claim 20.

(10) Response to Argument

36. Appellant's arguments filed on 06/27/2008 have been carefully considered but they are not deemed fully persuasive.

37. Appellant's arguments with respect to Claims 1-20 are:

- A Appellant argues that claims 9-16 are directed to statutory subject matter and therefore rejection under 35 U.S.C § 101 is improper.
- B Appellant argues that the feature of "minimum penalty determination" is missing from the APA as related to claim 1, 9, and 17 and their dependent claims.
- C Appellant argues that the feature of "there is no description of any type minimum penalty SLA being used in resource allocation" is missing from Chidambaran as related to claim 1, 9, and 17 and their dependent claims.
- D Appellant argues that the feature of "if it is determined that a breach of a first SLA is not imminent, allocation of service provider system resources is performed in a default manner" is missing from APA as related to claim 8.
- E Appellant argues that the feature of
 - a. identifying a lowest cost penalty from the one or more penalties associated with each SLA of the plurality of SLAs;
 - b. comparing the lowest cost penalty from the one or more penalties associated with each SLA of the plurality of SLAs to a penalty associated with the first SLA; and
 - c. selecting an SLA associated with either the lowest cost penalty from the one or more penalties associated with each SLA of the plurality of

SLAs or the first SLA as a minimum penalty SLA based on the comparison is missing from the APA as related to claim 1 and their dependent claims.

- F Appellant argues that the feature of "retrieving system resource allocation information" is missing from the combination of teachings of APA-Kiremidjian-Chidamabran-Chadha as related to claim 4.

38. **As to "Point A"**, it is the Examiner's position that rejection to claims 9-16 is proper. In order for software claims to be statutory, they must be claimed in combination with an appropriate medium and/or hardware to establish statutory category of invention and enable any functionality to be realized as set forth in MPEP 2106.01. Thus it is the Examiners position that the 35 USC 103 rejection is proper.

39. **As to "Point B"**, it is the Examiner's position that APA discloses (AA, page 1-2) IBM Tivoli SLA advisor correlates metrics from multiple IT infrastructure components and translates the results in to meaningful Service Level reports. These reports not only provide details about SLAs' but also provides details about service level management from customers to components. It is obvious to one of ordinary skill in the networking art that minimum penalty determination is nothing but an elementary component of the aforementioned detailed reporting capabilities. Thus it is the Examiners position that the 35 USC 103 rejection is proper.

40. **As to “Point C”**, it is the Examiner’s position that Chidambaran teaches (page 3, ¶0043) allocation of resources between applications associated with SLA’s and as explained above, APA discloses (AA, page 1-2) the minimum penalty SLA and applications associated with it. Therefore the combination of APA and Chidambaran, disclose the invention substantially as claimed. Thus it is the Examiners position that the 35 USC 103 rejection is proper.

41. **As to “Point D”**, it is the Examiner’s position that APA discloses (AD, page 4, lines 9-13) IBM Tivoli SLA advisor alerts and thus alters the allocated system resources when a breach in an SLA is imminent. It is obvious to one of ordinary skill in the networking art that if the breach is not imminent then no alerts are generated and that the resource allocation would be performed in a default manner as opposed to a particular (non-default) manner. Therefore contrary to applicant’s allegation that “a teaching of actions that occur in response to an actual SLA term violation cannot teach actions that occur when a SLA term violation is not imminent”, a teaching of action does indicate that if such action does not take place the default (non-particular) conditions prevail. Thus it is the Examiners position that the 35 USC 103 rejection is proper.

42. **As to “Point E”**, it is the Examiner’s position that Chaddha teaches (page 7, ¶0068, lines 14-19 & ¶0070) information associating SLA’s with penalties. The ability to determine the minimum penalty SLA amongst a plurality of SLA’s was covered in Claim 1. Thus by combining that which was disclosed by the combination of references of

Claim 1 and Chaddha's association of a cost with the penalties in association with the information from SLA's in conjunction with the detailed management reports that are based on the SLA's, it is obvious to one of ordinary skill in the networking art to conclude that the limitations of claim 3 are disclosed substantially as claimed. As explained above, it is obvious to one of ordinary skill in the networking art that the lowest cost penalty from the one or more penalties associated with each SLA from the plurality of SLA's as well as comparing the lowest cost penalty from the one or more penalties associated with each SLA of the plurality of SLA's to a penalty associated with the first SLA and selecting an SLA associated with either the lowest cost penalty from the one or more penalties associated with each SLS of the plurality of SLA's or the first SLA as a minimum penalty SLA based on the comparison may be provided and/or derived and/or extracted from the detailed management reports of IBM Tivoli system. Thus it is the Examiners position that the 35 USC 103 rejection is proper.

43. **As to "Point F"**, it is the Examiner's position that in order for IBM Tivoli SLA advisor to operate properly, it has to retrieve service provider system resource allocation information as is evident by APA (AC, page 3, col2, lines 13-15) which recites that IT organizations have become "internal" service providers to their constituencies. Therefore the retrieval of system provider system resource allocation information is no different than the retrieval of the system resources of the IT organization which has been addressed by the capabilities of IBM Tivoli SLA advisors' detailed management

report generator. Thus it is the Examiners position that the 35 USC 103 rejection is proper.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/U. C./

Examiner, Art Unit 2144

/William C. Vaughn, Jr./

Supervisory Patent Examiner, Art Unit 2144

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